UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,619	06/29/2001	Amy R. Griffin	M4065.0467/P467	4918

24998 7590 04/06/2004

DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP
2101 L STREET NW
WASHINGTON, DC 20037-1526

EXAMINER	
FOX, CHARLES A	

ART UNIT	PAPER NUMBER
3652	

DATE MAILED: 04/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/893,619	GRIFFIN, AMY R.
	Examiner	Art Unit
	Charles A. Fox	3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 January 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,7-13,17-28,31-35 and 39-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7-13,17-28,31-35 and 39-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Drawings

The drawings were received on January 22, 2004. These drawings are accepted.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 35 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The input shaft of the instant invention is disclosed as being turned manually. As such the claim as amended is not enabled for assisting the turning of the input shaft with gas cylinders. In the rejection of claim 35 below the examiner treats the limitation of using the gas cylinder as if it were used to help lift or lower the first section in conjunction with the jackscrews.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made

to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1,8-10,11,12,25,32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach in view of Bressler et al. In regards to claims 1 and 25 Beach US 2,931,519 teaches an apparatus for positioning an object comprising:

a first section (10) having a lifting mechanism (12) capable of movement in a vertical direction;

a second section (11) disposed over said lifting mechanism (12) and capable of moving with said lifting mechanism, said second section having a first sliding mechanism, said first sliding mechanism comprising a block (111) and a lead screw (110) for moving said block; and

a third section (13) disposed over said sliding mechanism and attached to said block ,capable of moving in response to said lifting and sliding mechanisms, wherein said third section has a surface (a) for supporting an object. Beach does not teach the slide mechanism as having rails and slider blocks. Bressler et al. US 6,136,375 teaches a linear slide assembly comprising :

a first section (22) with a pair of guide rails (24);

a second section (32) with guide blocks (30);

wherein said guide blocks engage said rails;

a lead screw actuator (64) for moving the second section relative to the first section in a direction parallel with said guide rails. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Beach

with the guide rails and blocks taught by Bressler et al. in order to keep the first and second sections in alignment at all times while allowing for linear adjustments as needed.

In regards to claims 8 and 9 Beach further teaches that the lifting section comprises hydraulic cylinders (75) and a source of pressurized hydraulic fluid (96).

In regards to claims 10 and 11 Beach also teaches the apparatus as having wheels (18) that allow the apparatus to move in a horizontal direction that is perpendicular to said first horizontal travel direction of said third section, and that wheels further comprise a clearance between said first section and an underlying surface, whereby said apparatus can clear obstacles when moving in any horizontal direction.

In regards to claim 12 Beach further teaches providing a third section (132) for moving a load in a transverse direction in relation to the first sliding section.

In regards to claims 32 and 33 Beach further teaches that the lifting section comprises hydraulic cylinders (75) and a source of pressurized hydraulic fluid (96).

Claims 2-4,7,26-28 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach in view of Bressler et al. as applied to claims 1 and 25 above, and further in view of Mills et al. Beach and Bressler et al. teach the limitations of claims 1and 25 as above, they does not teach using a jack screw or a pneumatic device as a lifting means. Mills et al. US 4,461,455 teaches a device for lifting aircraft engines wherein a first lift assembly is a series of jack screws (64) and a second lift assembly is a series of pneumatic lifts (54,120) wherein the two lift assemblies work in tandem to

raise the load to its proper position, Mills also teaches providing a pressurized gas source for pneumatic lifting assemblies (54,120).

It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the lift assemblies taught by Mills et al. in the device taught by Beach in order to allow the apparatus to align the object being lifted with its intended receiver in a manner that minimizes the chance of damage to the object while it is being mounted.

Claims 13,17,19,20-24 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach in view of Mills et al. and further in view of Nemoto. In regards to 13,17, 19 and 34 Beach teaches an apparatus for positioning an object comprising:

a base section (10) having a lifting mechanism (12) capable of movement in a vertical direction;

a first section (11) disposed over said lifting mechanism (12) and capable of moving with said lifting mechanism, said second section having a first sliding mechanism, said first sliding mechanism comprising a block (111) and a lead screw (110) for moving said block; and

a second section (13) disposed over said sliding mechanism and attached to said block ,capable of moving in response to said lifting and sliding mechanisms, wherein said second section has a surface (a) for supporting an object. Beach does not teach the lifting mechanism being a combination of a manual jack screw and a pneumatic lift device. Mills et al. US 4,461,455 teaches a device for lifting aircraft engines wherein a first lift assembly is a series of jack screws (64) and a second lift assembly is a series of

pneumatic lifts (54,120) wherein the two lift assemblies work in tandem to raise the load to its proper position, Mills also teaches providing a pressurized gas source for pneumatic lifting assemblies (54,120). Mills et al. do not teach the jackscrews as being manually actuated. Nemoto US 6,271,657 teaches a lifting device (30) for a semiconductor teat head wherein a screw (11) is manually turned by crank (31) to cause the device to lift an object placed upon it.

It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Beach with the lift assemblies taught by Mills et al. and to operate them manually as taught by Nemoto in order to allow the apparatus to align the object being lifted with its intended receiver in a manner that minimizes the chance of damage to the object while it is being mounted.

In regards to claims 20 and 21 Beach further teaches that the lifting section comprises hydraulic cylinders (75) and a source of pressurized hydraulic fluid (96).

In regards to claims 22 and 23 Beach further disclose the apparatus as having wheels (18) that allow the apparatus to move in a horizontal direction that is perpendicular to said first horizontal travel direction of said third section, and that wheels further comprise a clearance between said first section and an underlying surface, whereby said apparatus can clear obstacles when moving in any horizontal direction.

In regards to claim 24 Beach further teaches providing a third section (132) for moving a load in a transverse direction in relation to the first sliding section.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beach, Mills et al. and Nemoto as applied to claim 17 above, and further in view of Bressler et al. Beach, Mills et al. and Nemoto teach the limitations of claim 17 as above they do not teach the slide mechanism as having guide rails and guide blocks.

Bressler et al. teaches a linear slide assembly comprising :

a first section (22) with a pair of guide rails (24);

a second section (32) with guide blocks (30);

wherein said guide blocks engage said rails;

a lead screw actuator (64) for moving the second section relative to the first section in a direction parallel with said guide rails. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Beach, Mills et al. and Nemoto with the guide rails and blocks taught by Bressler et al. in order to keep the first and second sections in alignment at all times while allowing for linear adjustments as needed.

Claims 35,39,40,41,44, and 45 are rejected under 35 U.S.C. 103(a) by Beach in view of Nemoto. In regards to claims 35,41,42 and 44 Beach US 2,931,519 discloses the method of positioning an object, comprising the steps of:

providing a table having a base section (14), a middle section and a support section (60) adapted to move vertically and horizontally;

placing an object (L) on said support section;

moving said table to a desired destination for said object;

operating a provided lift mechanism to move said support section vertically;

operating a provided slide mechanism to move said support section horizontally;

supplying a pressurized gas to pneumatic lift cylinders (120) to raise said load in conjunction with a set of jackscrews;

said object being positioned in a desired location by said moving and operational steps.

Beach does not teach the lift mechanism as being manually operated. Nemoto US 6,271,657 teaches an apparatus for positioning test heads where the step of actuating a lift mechanism comprises manually rotating an input shaft attached to the jacking mechanisms. It would have been obvious to one of ordinary skill in the art, at the time of invention to modify the methods of moving an object taught by Beach with the manual input steps taught by Nemoto in order to allow the apparatus to operate independently of any power source, thereby allowing the apparatus to work where no immediate power source is available, as well as providing a combination of lift devices between the base frame and the middle frame.

In regards to claims 39 and 45 beach further discloses the steps of operating the slide mechanism comprises manually rotating a shaft attached to a lead screw.

In regards to claims 40 and 46 Beach further discloses the step of moving the table comprises rolling said table utilizing wheels (18).

Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beach in view of Nemoto as applied to claim 41 above, and further in view of Shiiba et al. Beach in view of Nemoto teach the limitations of claim 41 as above, they do not teach the lift mechanism as being pneumatically actuated. Shiiba et al. US $,643,630 teaches a lift

device whose operation comprises the step of supplying a pressurized gas to a gas cylinder assembly. It would have been obvious to one of ordinary skill in the art, at the time of invention to modify the step of operating the lift mechanism taught by Beach in view of Nemoto by providing gas to the actuation system as taught by Shiiba et al. in order to make use of a readily available source of power that requires no special knowledge to tap into and use.

Response to Amendment

The amendments filed on January 22, 2004 have been entered into the record.

Response to Arguments

Applicant's arguments filed January 22. 2004, with respect to claims 12 and 24 have been fully considered and are persuasive in light of new figure 11. The 35 U.S.C. 112 rejections of claims 12 and 24 have been withdrawn.

Applicant's arguments filed January 22, 2004 have been fully considered but they are not persuasive. In regards for the arguments against the 35 U.S.C. 112 rejection of claim 35, the pneumatic cylinders assist in lifting a portion of the device not in turning the jack screws as claimed.

In regards to the rejection of claim 1 based on a combination of the beach and Bressler references, the examiner disagrees with the applicants arguments. First off the applicant in the instant application uses a reference numeral (70) for a sliding mechanism and later breaks it down into specific parts, he then argues that the beach reference doing the same thing does not meet the claim as written. The cited reference

need not explicitly point out each element of a claim, but merely teach a device with those elements and Beach does so.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Thus using the slide blocks taught by Bressler on the device taught by Beach would have been within the skill of an ordinary practitioner in the art as maintaining alignment of a linear slide mechanism is important to many various endeavors that apply linear slides.

The arguments against the rejection of claim 25 are the same as those for claim 1 and are not considered persuasive for the reasons stated above.

In regards to the rejection of claims 34 and 13 with the cited references of Beach, Mills and Nemoto the examiner holds the rejection is proper. The hindsight argument is not proper in that applicants states in paragraph 1 on page 9 of the specification that many variations can be implement by one of ordinary skill in the art. Further on paragraph 2 page 10 of the specification the applicant notes the equivalency of jack screws, pneumatic cylinders and hydraulic cylinders. Thus the references are properly combinable as they all teach lift mechanisms using either jack screws pneumatic

cylinders or hydraulic cylinders or some combination of the three. Since one of ordinary skill in the art would be able to implement many variations of a lifting device using these elements they would also look to these references for teachings. Therefore the references are deemed as being combined properly and the rejection of claim 34 and 14 stand as before.

The same arguments are presented against the rejection of claim 34 as used against the rejection of claim 34, as such the examiner uphold that rejection as well for the reasons given above.

In regards to the rejection of claim 41 again refer to page 9 paragraph one where the applicant teaches one of ordinary skill in the art modifies the jacking mechanism as needed for any particular situation. This taken in conjunction with applicant's teaching of equivalent lifting means as discussed above teaches that one of ordinary skill would have combined the references as needed to address a particular problem. As the references are well know and all deal with lifting a support of some sort they are deemed to be combined properly and the rejection stands as before.

The arguments for the dependent claims rely on the arguments for the independent claims and are addresses above.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Fox whose telephone number is 703-605-4294. The examiner can normally be reached between 7:00-5:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached at 703-308-3248. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CAF
4-3-04

EILEEN D. LILLIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600